IT Unit 3

Topic 2

# Ch. 2, Data Analytics: Drawing Conclusions, Part 1

**Data** (Informatics, p 73 & 82)

1. Define data (p 73).

* Data is made up of facts and statistics. Raw facts have np context to them, so you cannot make much sense of them, or give them any meaning, to understand and make meaning of your data , you need to process it converting it into useful information.

**Primary & secondary data, p 82-91**

1. Distinguish between primary & secondary data. List some strengths and weaknesses of both.

* Primary data are facts that you, the researcher, have collected directly to answer a specific question but may also be old data that has never seen proper scrutiny before. Secondary data differs from primary data because it has been collected and interrupted by someone other than the researcher. The collection of the data could be other researchers, or governments departments, or any of a variety of source such as the internet of books basically publish data.
* Primary data Strengths
* Suits your research question exactly
* No mysteries about the source
* You know if follow up data can sought
* Primary data Weaknesses
* Time and labour intensive
* Expense to collect
* Data is scarce compared with researchers backed by universities or companies
* Secondary data Strengths
* Only way to collect historical data
* Can support a researcher own findings
* Can provide a baseline to whish primary data can be compared
* Secondary data Weaknesses
* May be partly irrelevant to research question
* Sources and context may be unknown and unknowable
* Potentially inaccurate, biased, unrepresentative or even false

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**Quantitative and qualitative data, p 85**

1. Distinguish between qualitative & quantitative data. List some strengths and weaknesses of both.

* Quantitative data is concerned with numbers and measurement an objective approach, closed questions and can be easily scored Qualitative data is expressed in words because it is concerned with feelings, personal views and experience and opinions. Qualitative data is more difficult to analyse statistically because it has to be coded to be scored.
* Qualitative data Strengths
* More in depth answer usually short text 0 to 200 words
* Qualitative data weaknesses
* harder than Quantitative to turn into information
* Quantitative data Strengths
* Numerical answer which makes interpreting easy
* Can be compared to historical data
* Collected in large quantities
* Quantitative data Weaknesses
* Potentially bias data
* Limited response to multiple choice

1. How can qualitative data be more easily processed?

* It must be transformed by interpreting it and coding it into a summarised form that will help you to analyse it appropriately.

**Coding qualitative data,** p 86

1. What techniques are used to collect quantitative data?

* Quantitative data is collected using techniques such as online questionnaires that feature Likert scales, multiple dropdowns and/or radio buttons

1. How do you transform qualitative data into useful information?

* Yu must transform the data by interrupting and coding it into a summarised form that will you to analyse it appropriately.

**Case Study: Ready Set Go! GYM,** read this case study.

1. What is meant by descriptive coding?

* It’s when it reduces the original wordiness of the statement to a more manageable form using freely chosen summary terms.

What is the role of a rubric?

* A detailed list of descriptive grading criteria that corresponds with a code